

# Masked image modeling for image completion on simulated calorimeter data

*Friday 19 July 2024 20:40 (20 minutes)*

The transformer models are dominating the generative modeling, namely in the natural language processing domain. The attention mechanism in those models does not suffer from implicit bias and it enables the processing of large amounts of data thanks to the parallelization of computations during the training. This study presents experiments with the transformer blocks in an image completion model trained on Monte Carlo simulations of an electromagnetic calorimeter. We test different setups of the model to observe and analyze the behavior of the transformer-based masked model on the calorimeter data that is characterized by high granularity and a high dynamic range of values.

## Alternate track

### I read the instructions above

Yes

**Author:** JARUSKOVA, Kristina (CERN)

**Presenter:** JARUSKOVA, Kristina (CERN)

**Session Classification:** Poster Session 2

**Track Classification:** 14. Computing, AI and Data Handling